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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,139	12/02/1999	CHANGSHENG XU	U-012452-9	9532

7590

04/05/2004

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NEW YORK, NY 10023

EXAMINER

ZAND, KAMBIZ

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/445,139

Applicant(s)

XU ET AL.

Examiner

Kambiz Zand

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6, 10-20, 24-34, 38-43, 45-51, 53-59, 61-74 is/are rejected.  
7) ☒ Claim(s) 7-9, 21-23, 35-37, 44, 52 and 60 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this section can be found in the prior office action.
2. The prior office actions are incorporated herein by reference. In particular, the observations with respect to claim language, and response to previously presented arguments.
3. Claims 3, 17, 31 have been amended.
4. Claims 69-74 have been added.
5. Claims 1-74 are pending.
6. Examiner withdraws objection to the drawings and specification due to correction by the applicant.
7. Examiner withdraws rejection of claims 3, 17 and 31 under 35 U.S.C 112-second paragraphs due to correction by the applicant.

### ***Response to Arguments***

8. Applicant's arguments filed 03/04/04 have been fully considered but they are not persuasive.

As per Applicant's arguments with respect to rejected claims, Examiner refers applicant to the following remarks:

- Examiner considers encoding of the watermark as an encryption process.  
Watermarking by itself also is considered as an encryption process that protects the original data.
- Examiner agrees that Moskowitz do not discuss WT. However Applicant has admitted that synthesizer-architecture is prior art (see page 3, lines 1-7 of the specification).
- Examiner considers WT as a form of audio format.
- In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the watermarking information is not carried in "individual samples"") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
- With respect to redundancy (see col.12, line 47)

***Claim Rejections - 35 USC § 103***

9. **Claims 1-6, 10-20, 24-34, 38-43, 45-51, 53-59, 61-67 and 69-74** are rejected under 35 U.S.C. 103(a) as being unpatentable over Moskowitz et al (6,522,767 B1) in view of Applicant Admittance Prior Art (AAPA).

**As per claims 1, 14-15, 28-29, 42-43, 50-51, 58-59, 66-67, 70, 72 and 74** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and method of embedding and extracting a digital watermark in digital audio data coded using a synthesizer-architecture format, said method including the steps of: embedding and extracting at least a portion of said digital watermark in sample data (see abstract; col.5, lines 23-37; col.6, lines 23-49; also see col.4-14 for detailed description) but do not disclose watermarking of articulation parameters of said synthesizer-architecture wavetable (WT) format. However AAPA teach articulation parameters of said synthesizer-architecture format as prior art (see page 2, lines 14-23 where synthesizer-architecture wavetable (WT) format is described as becoming a new standard in musical industry). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize AAPA's synthesizer-architecture format in addition to Moskowitz's featured-based digital watermarking that relates not to one sample such as data sampling but on multiple samples (such as data sampling and synthesizer-format sampling; etc..) as described in col.5, lines 23-26 in order to watermark a digital signal or data.

**As per claims 2, 16 , 30, 45, 53, 61, 69, 71 and 73** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 1, 15, 29, 43, 51 and 60 further including the step of adaptively coding said digital

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watermark in said sample data (see col.12, lines 45-47 where by adaptively coding said digital watermark in said sample data the positioning of the inserted watermark is selected).

**As per claims 3, 17 and 31** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 2, 16 and 30, wherein redundancy adaptive coding is used based on a finite automaton (see col.12, line 47).

**As per claims 4, 18 and 32** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 1, 15 and 29, further including the step of hiding said digital watermark in said articulation parameters by creating virtual parameters (see col.10, lines 23-28).

**As per claims 5, 19 and 33** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 4, 18 and 32, further including the step of embedding said digital watermark in said virtual parameters (see col.10, lines 23-42).

**As per claims 6, 20 and 34** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 4, 18 and 32 further including the step of extracting one or more coded bits from watermarked sample data,

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said virtual parameters created dependent upon a watermarked coded bit sequence (see col.14, lines 26-49).

**As per claims 10, 24 and 38** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 4, 18 and 32, further including the step of encrypting said digital watermark (see col.3, lines 36-43).

**As per claims 11, 25 and 39** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 1,15 and 29, further including the step of generating said digital watermark (see col3, lines 36-43).

**As per claims 12, 26, 40, 48, 56 and 64** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 1, 15 and 29, further including the step of dividing said digital audio data coded using a architecture-architecture format into said sample data and said articulation parameters (see col.5, lines 22-26 where different samples represent different divided parameters before the watermarking or after).

**As per claims 13, 27, 41, 49, 57 and 65** and Examiner takes an official notice that embedding and extracting a playback control signal is well known in the art of multimedia, video and audio cryptography.

**As per claims 46, 54 and 62** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 45, 53 and 61, further including the step of decrypting said adaptively coded bit sequence (see col.3, lines 10-17).

**As per claims 47, 55 and 63** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and the method according to claims 43, 51 and 59, further including the step of decrypting said digital watermark (see col.3, lines 10-17).

10. **Claim 68** is rejected under 35 U.S.C. 103(a) as being unpatentable over Moskowitz et al (6,522,767 B1) in view of Applicant Admittance Prior Art (AAPA) and further in view of Rhoads (6,411,725 B1).

**As per claim 68** Moskowitz et al (6,522,767 B1) teach an apparatus, a computer program product and method of embedding and extracting a digital watermark in digital audio data coded using a synthesizer-architecture format, said method including the steps of: embedding and extracting at least a portion of said digital watermark in sample data (see abstract; col.5, lines 23-37; col.6, lines 23-49; also see col.4-14 for detailed description) but do not disclose watermarking of articulation parameters of said synthesizer-architecture wavetable (WT) format. However AAPA teach articulation parameters of said synthesizer-architecture format as prior art (see



page 2, lines 14-23 where synthesizer-architecture wavetable (WT) format is described as becoming a new standard in musical industry). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize AAPA's synthesizer-architecture format in addition to Moskowitz's featured-based digital watermarking that relates not to one sample such as data sampling but on multiple samples (such as data sampling and synthesizer-format sampling; etc..) as described in col.5, lines 23-26 in order to watermark a digital signal or data but Moskowitz et al (6,522,767 B1) in view of Applicant Admittance Prior Art (AAPA) do not disclose the relationship between control signal and number of playback and decrementing the numbers according to number of playback. However Rhoads (6,411,725 B1) teach the relationship between control signal and number of playback and decrementing the numbers according to number of playback (see col.6, lines 15-19; col.7, lines 16-21 where by superimposing a number, the number of playback is being controlled ant having a counter to track the numbers of playback by decrementing or incrementing is an integral part of such a control signal). It would have been obvious to one of ordinary skilled in the art to utilize Rhoads's number of playback superimposing in Moskowitz's watermarking technique in view of AAPA's synthesizer-architecture wavetable (WT) format in order to control the number of playback of the audio file based on provider's copy protection rules and regulation.

***Allowable Subject Matter***

11. Claims 7-9, 21-23, 35-37, 44, 52 and 60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

**12. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Zand whose telephone number is (703) 306-4169. The examiner can normally be reached on Monday-Thursday (8:00-5:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone numbers for the organization where this application or proceeding is assigned as (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kambiz Zand

04/02/04

  
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